

Orange County Environmental Justice presents:
Communities Organizing for Better Water

Policy Brief



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Executive Summary & Background

Orange County Environmental Justice (OCEJ) vision is to center communities disproportionately affected by environmental pollution. We aim to empower them to hold decision-makers accountable and participate in co-governance.

Building Community Capacity with Photovoice (BCCP) is a tested project, in which residents of disadvantaged communities in the Santa Ana River Watershed document, communicate, and build community capacity to help ensure water quality for all.

BCCP is a response to Orange County Environmental Justice Education Fund's (OCEJEF) 2016-2017 door-to-door multilingual survey of Orange County (OC) residents living within CalEPA Disadvantaged Communities.

Of 4,163 respondents, over 40% rated water quality "below average or bad." The survey also revealed a prevailing mistrust of public water sources and water management systems.

Moreover, residents also described a myriad of socio-economic issues that impacted their capacity to engage with local governments.

Compared to other Orange County (OC) cities, other studies show that the cities with the largest populations of people of color (Anaheim, Fullerton, Garden Grove, Orange, and Santa Ana) have disproportionately high numbers of toxic industrial activities, which in turn have harmed the County's water quality.



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INTRODUCTION

1 of 3

Purpose of Policy Brief

Although Orange County (OC) resides in one of the world's wealthiest economies, the disparity between accessible potable water continues to negatively impact disadvantaged communities. Through this policy brief we will highlight the current pollutants jeopardizing our water supplies while uplifting the solutions voiced by residents.

Orange County Water District

Before we dive into the state of our water, we'd like to introduce some important entities involved in providing safe drinking water to OC residents. First and foremost, we have the Orange County Water District (OCWD). Founded in 1933, OCWD was created to protect and replenish the Orange County Groundwater Basin (OCGB) illustrated in IMAGE#. Today, they continue to guard the region's groundwater basin through internationally renowned replenishment systems, making the OCWD a world class leader in groundwater stewardship. In fact, OCWD's Groundwater Replenishment System is the largest advanced water purification system for recycled potable water in the world.

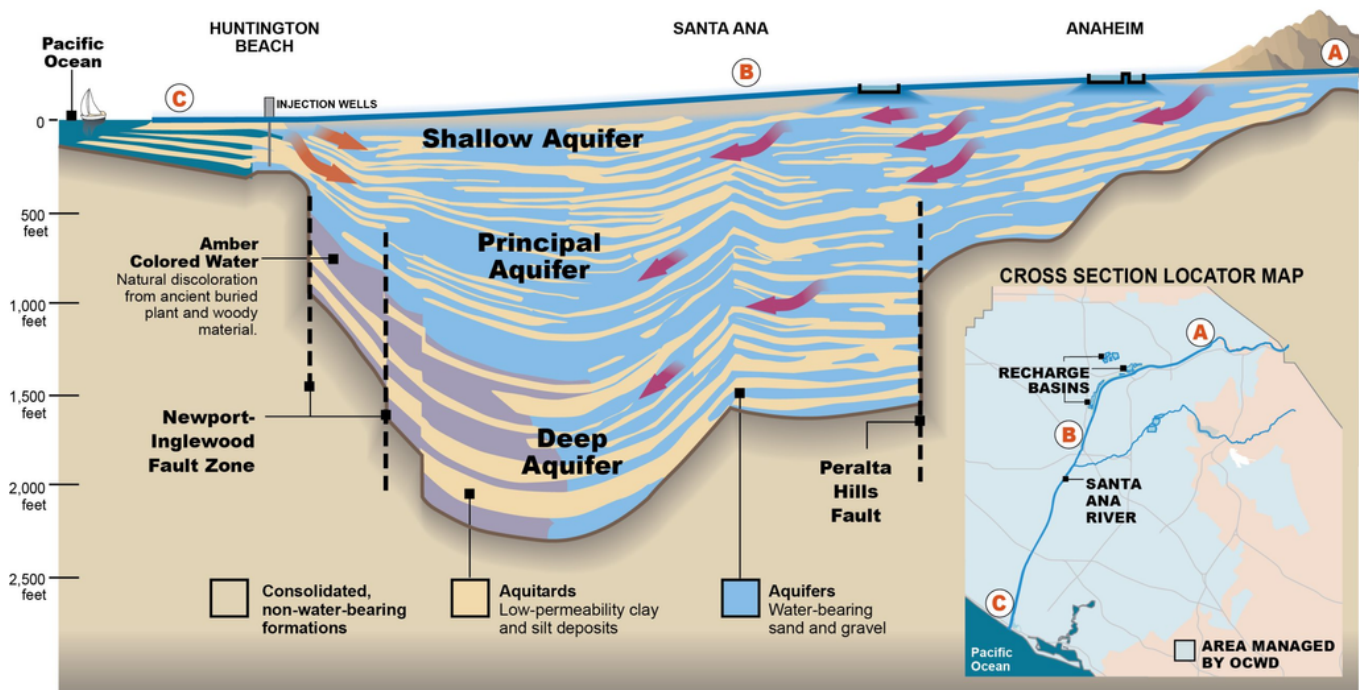


Image 1

Source: Orange County Water District

How OC's Water Works

With all these grand recognitions, Orange County is doing something right, but how exactly does this all come together ?

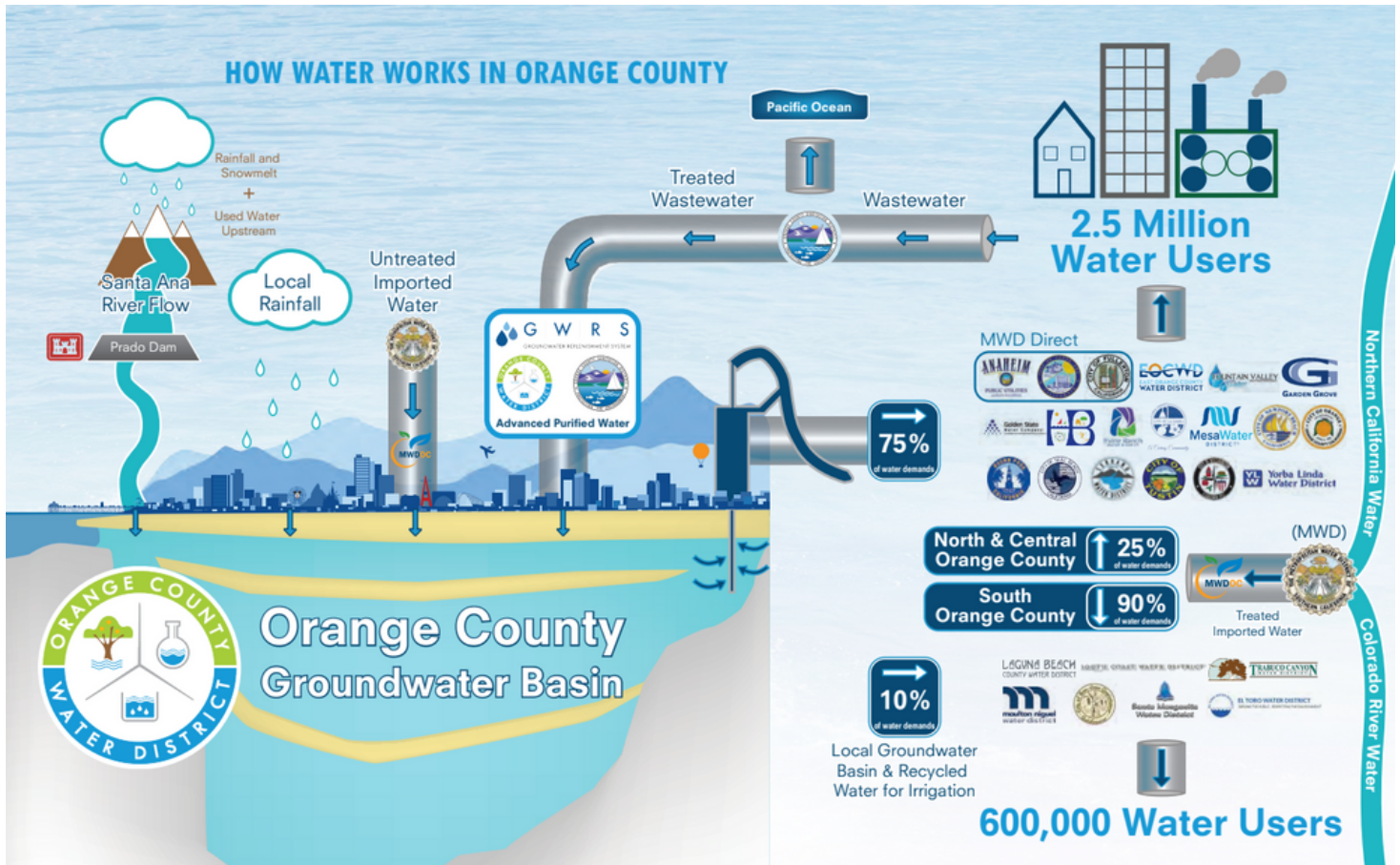


Image 2
Source: Orange County Water District

In the image above, notice that the OC Groundwater Basin is replenished through many avenues including rainfall, imported water, and treated water. Most of this water is used to meet 75% of overall water demands in North & Central Orange County. The rest of the 25% demands for North & Central OC is provided through imported water.

For South OC, 90% of their water is imported and the remaining 10% is from local groundwater basins and recycled water. To learn more about where your water is from, please visit ocwd.com.

Santa Ana Regional Water Quality Control Board

The state of California has 9 Regional Water Quality Control Boards who are each comprised of seven board members. The board members are appointed by the Governor and confirmed by the Senate. The water boards are divided based on watersheds and multiple factors such as climate type and hydrology.

The purpose of these quality control boards is to set water standards by establishing and issuing discharge permits. Through adequate monitoring and enforcement of such standards, the Santa Ana Regional Water Quality Control Board is able to protect the environment and provide potable water to residents.

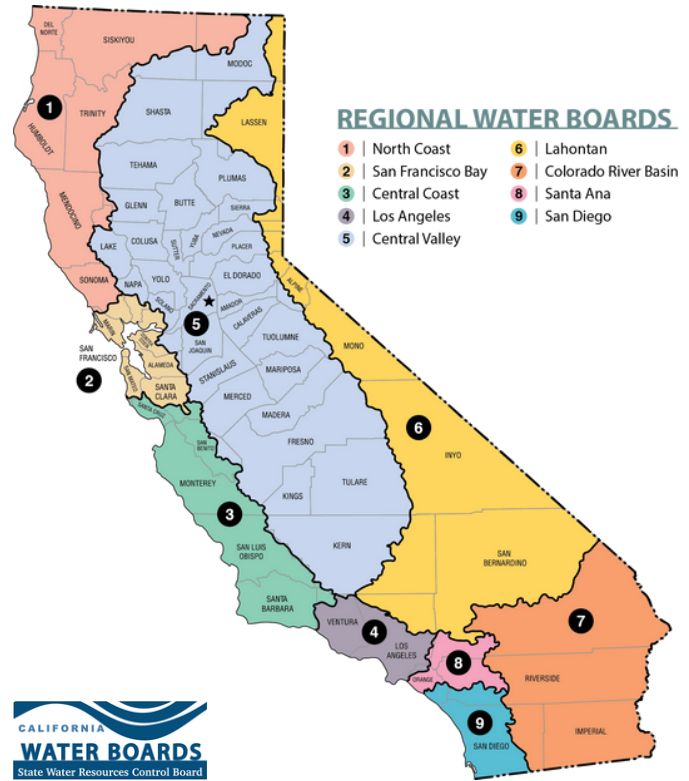


Image 3
Source: CA Water Boards

Orange County Key Players in Water Quality Monitoring & Enforcement:



RESEARCH APPROACH & FAQ'S

How was the study conducted?

All community members were invited to participate. We highly encouraged those who are connected or interested in regional water boards at the county or city levels or have knowledge of water quality issues to participate.

OCEJ staff then hosted a series of virtual meeting with participants to discuss the project and their role. Participants then went out to their assigned field location and gathered data by taking photos and completed observation sheets to document experiences. We then reconvened to make the data analysis process collaborative by engaging everyone in dialogue to share first-hand experience.



How were participants prepared to take photos?

At OCEJ, we follow the Community Science Organizing Model as illustrated below. With this strategy, our priority is to center and uplift marginalized voices while providing support & resources from established institutions to assure desired outcomes.

As we contacted residents who were interested in participating, we partnered with Orange County Coastkeeper (OCC), a non-profit that advocates for people's right to clean water, and the University of California of Irvine. Together, we hosted a series of PhotoVoice workshops where participants came together and learned the importance of effective photo-documentation.



The goal of the workshops is to guide participants in effectively capturing strong evidence that supports their concerns. After all, residents are experts of their own neighborhoods; they have a better understanding of the factors that revolve around the state of their environment than anyone else.

If folks were aware of water quality issues in their area but didn't know where or how to start, our teams suggested the following tips:

1. Review a city's zone map and identify any potential areas of concern (ex. industrial zone next to school/residential zone)
2. Identify manufacturers or factories of harmful products/chemicals
3. Observe water usage in public/private areas that raise your concern (ex. golf courses)
4. Identify polluted running or pooled water from non-point source (ex. rainbow film on top of water).

Cases and scenarios may vary, these are only a handful of general tips that folks can use to be prepared and begin their investigations.

OCEJ's Community Science Organizing Model





What did the evaluation form entail?

After participants went out to the field they filled out an the COBW PhotoVoice Evaluation Sheet to gather a few more details. The following sections breakdown the evaluation.

With this evaluation we are able to note any significant details regarding their photo documentation.

Point source pollution is easier to identify during dry weather. However, rainstorm pollution accentuates the impact of unmonitored storm water pollution.

A water condition that may not be captured through the lens of a camera are smells. Scents play a key role in identifying the source of pollution. The state of the facility is also reported to understand if maintenance is regularly scheduled, or if it's abandoned property that continues to pose an environmental concern.

Overall, the evaluation form helps flag other significant details that contribute to the photo-documentation.



What discussions, barriers, or patterns did OCEJ and participants notice during discussion?



Discussion 1: Follow up Actions & Next Steps

As we shared our findings, we all asked ourselves : How exactly can we address this?

OCEJ addressed this by having the participants understand that each case is different and may move along at different timelines. However the overarching pattern and discussion that we noticed is that residents are aware and concerned of certain polluting entities in their environments. As a result, we were able to provide this policy brief that covers such concerns in the hope to raise awareness, monitoring, and enforcement of already existng standards while adding improvements based on our findings.

Barrier 1: Testing

As a small non-profit organization we didn't have the adequate funding to provide testing kits to participants to expand on PhotoVoice collection data. With upcoming opportunities, we plan to expand on water analysis by providing test kits and sending samples to a laboratory for further research.

Pattern 1: Awareness

A pattern that we quickly noticed is how passionate and willing community members are to advocate for a safe and clean environment. Imagine the impact we can create throughout Orange County if water districts and our community leaders come together to improve water monitoring and enforcement. Residents will build trust in water utility companies and Orange County will be a leader in environmental justice.

How did OCEJ compile the data for this policy brief?



Following discussions between participants and OCEJ staff on next steps and potential solutions, OCEJ compiled a data roadmap for analyzing the participant evaluation sheets. The data roadmap identifies major issues and trends that allows for synthesizing or organizing results based on particular goals or intended outcomes. It uses four different coded categories to analyze participants' worksheets.

Separating pollution type by point source or nonpoint source water pollution enables an initial, potential identification of the pollutant. While point sources are directly traceable to a source, non-point sources are further coded into either stormwater runoff or dry-weather runoff.

The next category identifies contaminants, understood as substances or objects observed at sites based on both participants' perceptions and experiences, and technical information. Specific focuses include potential threats to water quality, or objects contributing to water quality issues in combination with events such as flooding or clogged storm drains.

Observing instances of excess water at identified sites also helps locate pollutants. This includes whether excess water occurred in cases of flooding or stagnant water.

Power mapping is the final coded category used to link pollutants in the data to potential areas of reform, education, or accountability. Using two subcategories aids in this process through identifying a possible source of the pollutant and the responsible regulatory agency for the pollution. Possible source looks to identify, if possible, responsibility for specific instances of pollution, contaminant type, or water quality issue. Responsible agency, where possible, identifies the agency, board(s), or institution(s) holding regulatory power over the issue.

PhotoVoice Gallery

BUENA PARK

Description:

In Image 1 below, participant captured algae growing from Coyote Creek. Algae blooms indicate excess use of fertilizers such as nitrogen and phosphorus. Storm water runoff and increasing temperatures accelerate the growth of algae blooms.

Environmental Concerns:

Algae blooms quickly spread on the surface of water, blocking sunlight and decreasing oxygen levels for marine life. Resulting in a dangerous body of water for marine life and human consumption. Not to mention the stench that follows algae blooms from dead plants and animals. From this picture alone, the participant was able to flag the problem in order to address it as soon as possible. In the long run, we'd like to use such evidence to trace the point source to prevent or reduce algae blooms in our rivers.

Policy Recommendations:

Health of Waterways ([see page 31](#))



Image 1

GARDEN GROVE

Description:

Increase in maintenance for our rivers and other bodies of water can make a great impact to our daily lives and well being. In the photo below we notice debris left behind from unknown sources.

Environmental Concerns:

- Pollution
- Inadequate waste management

Policy Recommendations:

- Health of Waterways ([see page 31](#))
- City Maintenance ([see page 25](#))
- Indigenous Stewardship ([see page 21](#))

Image 2



GARDEN GROVE

Description:

In this picture, we see a flooded sidewalk as a result of a blocked storm water drain.

Environmental Concerns:

- Runoff pollution
- Inadequate storm drainage systems

Policy Recommendations:

- City Maintenance ([see page 25](#))
- General Water Conservation ([see page 26](#))
- Educational Outreach ([see page 33](#))



Image 3

FULLERTON

Description:

Unknown source of pooled water without proper draining system rises concerns for large storm events.

Environmental Concerns:

- Water runoff
- Need for permeable roads.

Policy Recommendations:

- Educational Outreach ([see page 33](#))
- General Water Conservation ([see page 26](#))

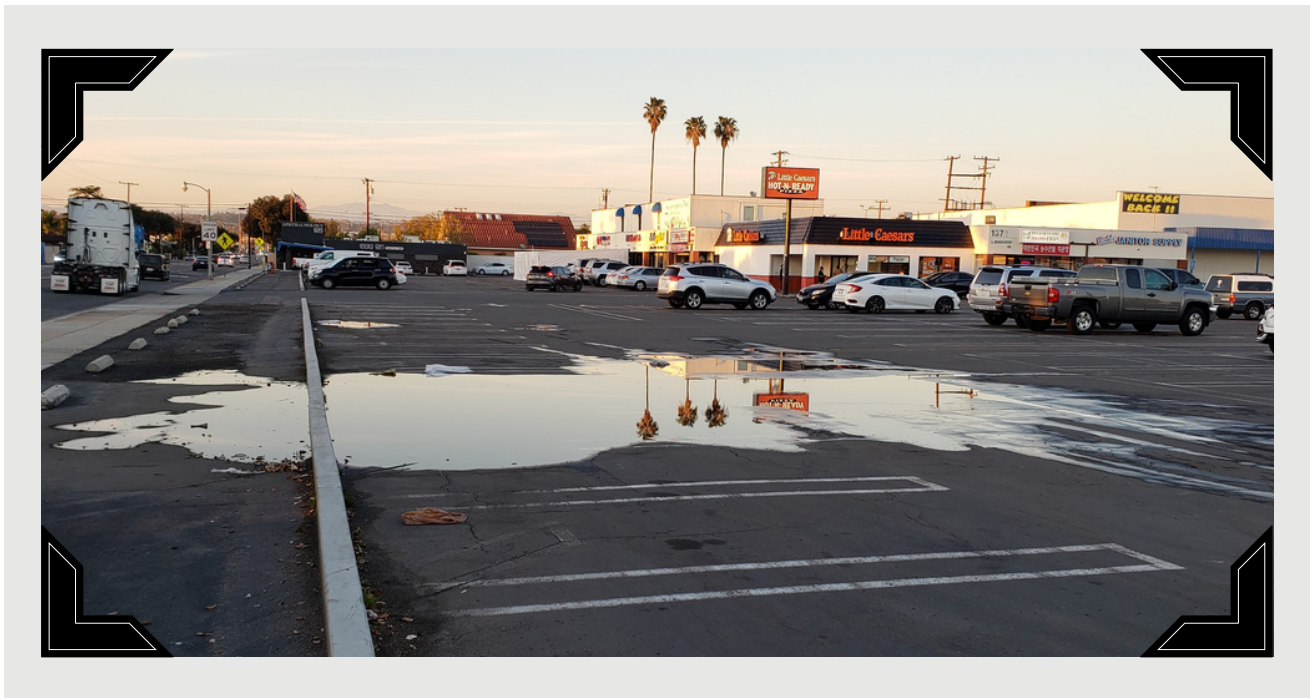


Image 4

FULLERTON

Description:

Proper maintenance and quick response times to these problems can save water and money in the long run.

Environmental Concerns:

- Broken water sprinklers

Policy Recommendations:

- General Water Conservation ([see page 26](#))
- Educational Outreach ([see page 33](#))
- Health of Waterways ([see page 31](#))

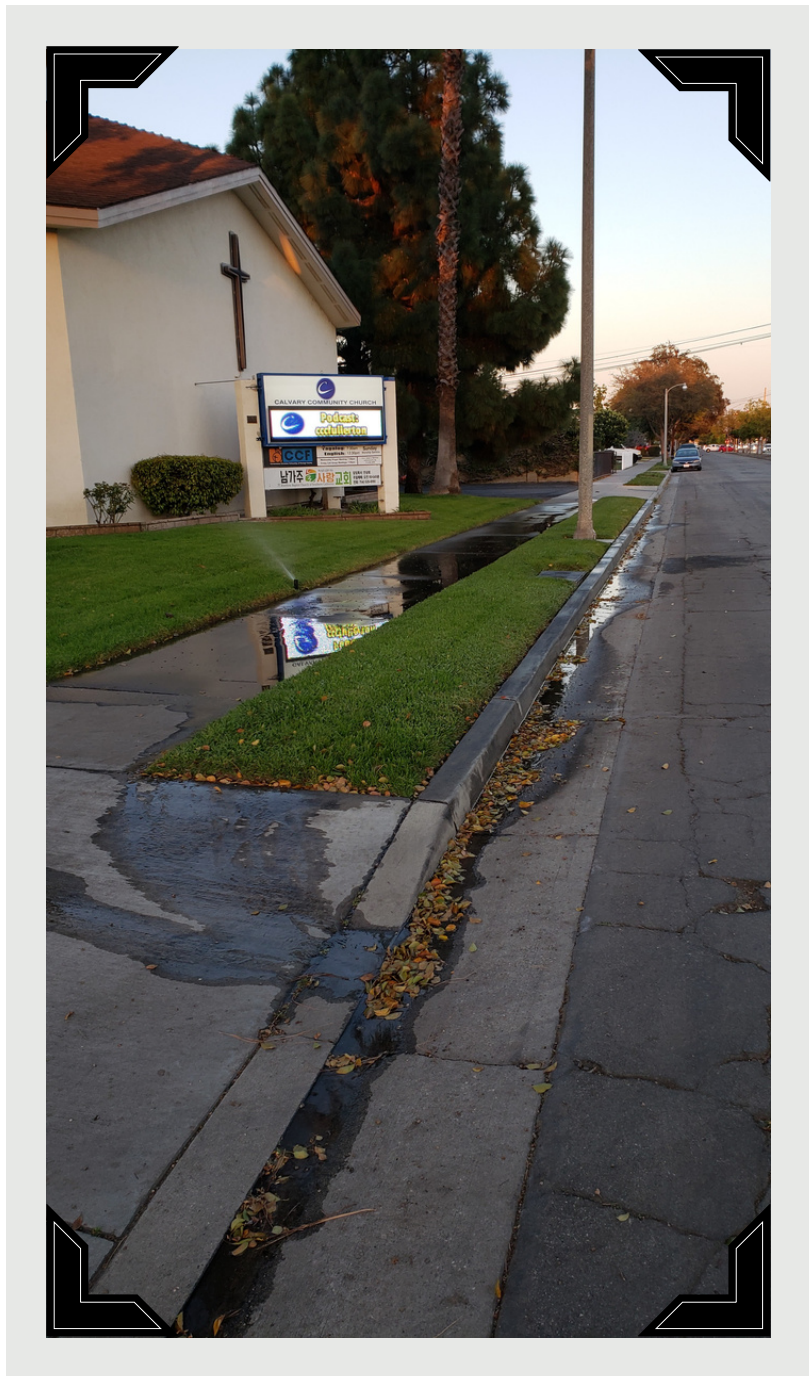


Image 5

FULLERTON

Description:

Unknown water runoff.

Environmental Concerns:

- Water runoff.

Policy Recommendations:

- Educational Outreach ([see page 33](#))
- General Water Conservation ([see page 36](#))
- Industrial Polluters ([see page 24](#))

Image 6



PLACENTIA

Image 7



Description for Images 7 & 8

Image shows clogged drainage system causing flooding.

Environmental Concerns:

- Improper maintenance
- Storm water pollution

Image 8



Policy Recommendations

- City Maintenance ([see page 25](#))
- General Water Conservation ([see page 26](#))
- Health of Waterways ([see page 31](#))

SANTA ANA

Description:

The following picture demonstrates hazardous waste from a junk yard that is not being properly contained or managed.

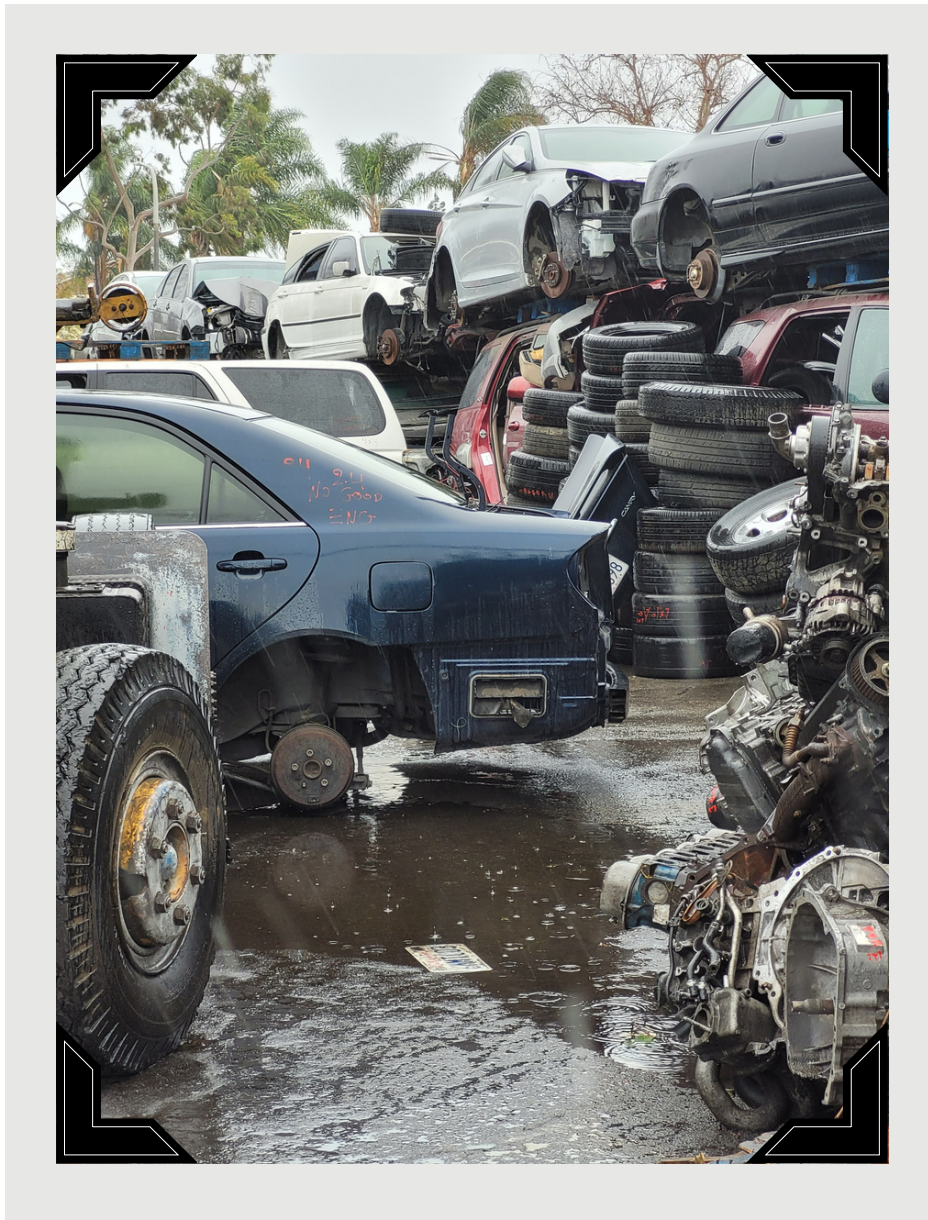
Environmental Concerns:

- Storm water runoff pollution.

Policy Recommendations:

- Industrial Polluters ([see page 24](#))
- Educational Outreach ([see page 33](#))

Image 9



SANTA ANA

Description:

The following picture demonstrates hazardous waste from a junk yard that is not being properly contained or managed.

Environmental Concerns:

- Improper waste disposal and runoff pollution.

Policy Recommendations:

- Industrial Polluters ([see page 24](#))
- Educational Outreach ([see page 33](#))

Image 10



Gallery Wrap Up

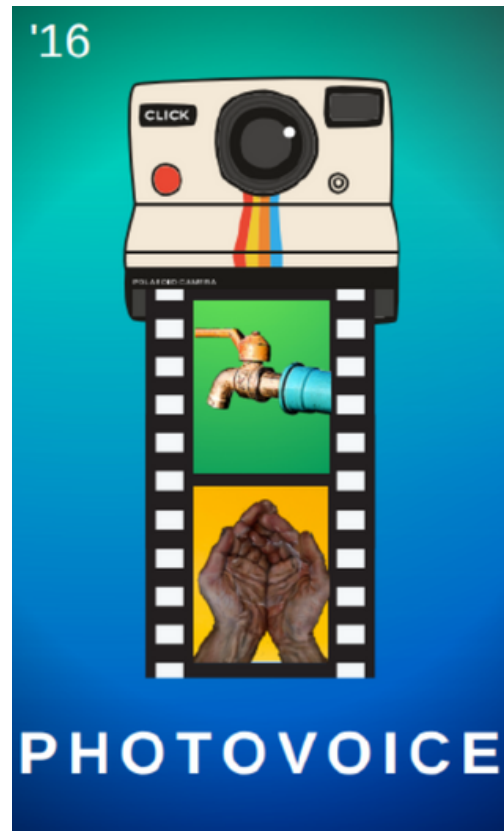
OCEJ's Communities Organizing for Better Water came together after a survey done in partnership with Orange County Coast Keeper, University of Irvine's Newkirk Center for Science and Society back in 2016.

The survey asked Orange County residents what their greatest environmental concern was and water quality / monitoring / enforcement was the top response. Therefore we created PhotoVoice as research tool for residents to use to document evidence proving their water related concerns.

This policy brief wouldn't have been possible without the input of community members who took time out of their days to investigate their concerns and report back to our staff. PhotoVoice participants built the foundation and policy recommendations for this document that will eventually create a long lasting positive impact for the state of our waters in Orange County.

Special shout outs to the following participants:

- Chelsea Ho
- Ash Cruz
- Daniel Moctezuma
- Roxana Chavez
- Rachel Bressler
- Kayla Asato
- Matthew Walsh
- Melissa Brock
- Jose Trinidad Castaneda
- Katie Tadique
- Bridgette Donahugh
- Leslie Santos










UCI Newkirk Center
for Science & Society



POLICY RECOMMENDATIONS OVERVIEW

PhotoVoice is an accessible research method for anyone to use to gather evidence, raise awareness, and address the concern for the sake of our environment, safety, and health. As a result, our team compiled the following policy recommendations for the County of Orange to establish. There are 7 main categories in which our policy recommendations fall under

-  Indigenous Stewardship
-  Industrial Polluters
-  City Maintenance
-  Water Governance
-  General Water Conservation
-  Health of Waterways
-  Educational Outreach



INDIGENOUS STEWARDSHIP

Indigenous practices and leadership are integral into the environmental justice movement and climate change adaptation solutions. To begin the following policy recommendations are to be established:

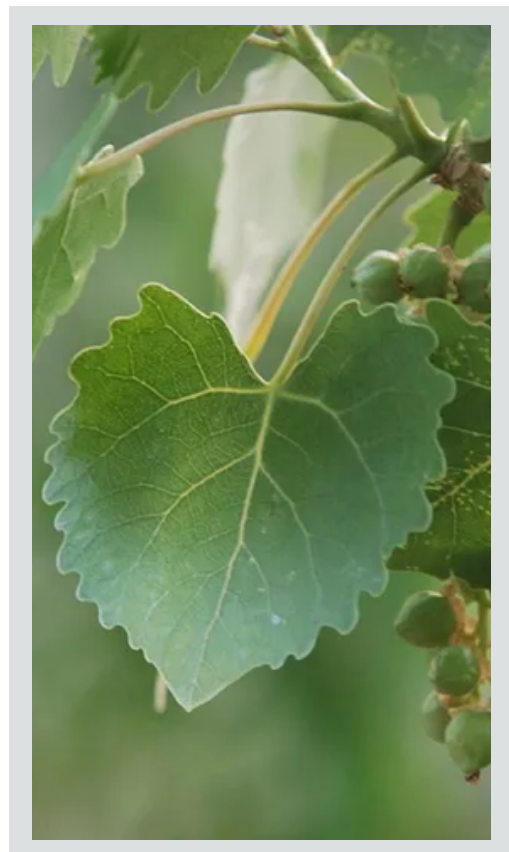
- 1) Create leadership positions for Indigenous communities, practices, and solutions. it is important for indigenous communities to lead the conversation on stewardship, and for their voices to not only be uplifted, but at the front in a leadership role.
- 2) Include Indigenous peoples in conservation and restoration conversations with water authorities in order to increase Indigenous representation in seats of power.



INDIGENOUS STEWARDSHIP

Santa Ana River: OC Parks & State Coastal Conservancy

- 1) Plant native plants along the entire Santa Ana River to limit erosion, increase biodiversity, and reduce the risk of environmental disaster. This should include the increase of green zones next to the riverbanks (i.e., grassy area between ARTC and the Riverbed). Indigenous leadership should be included in this process.
- 2) Include signage about the importance of native plants along the Santa Ana River and provide historical information about the indigenous people of the area and their environmental practices. Indigenous leadership should be included in this process.
- 3) Increase employment of maintenance workers with a focus on prioritizing local hires with full training and benefits. Indigenous leadership should be included in this process.
- 4) Increase recreational opportunities along the Santa Ana River. Indigenous leadership should be included in this process.
- 5) Restore Wetlands using native plants and biodiversity at the mouths of waterways (such as the Santa Ana River outlet between Newport Beach and Huntington Beach). Indigenous leadership should be included in this process.



INDIGENOUS STEWARDSHIP

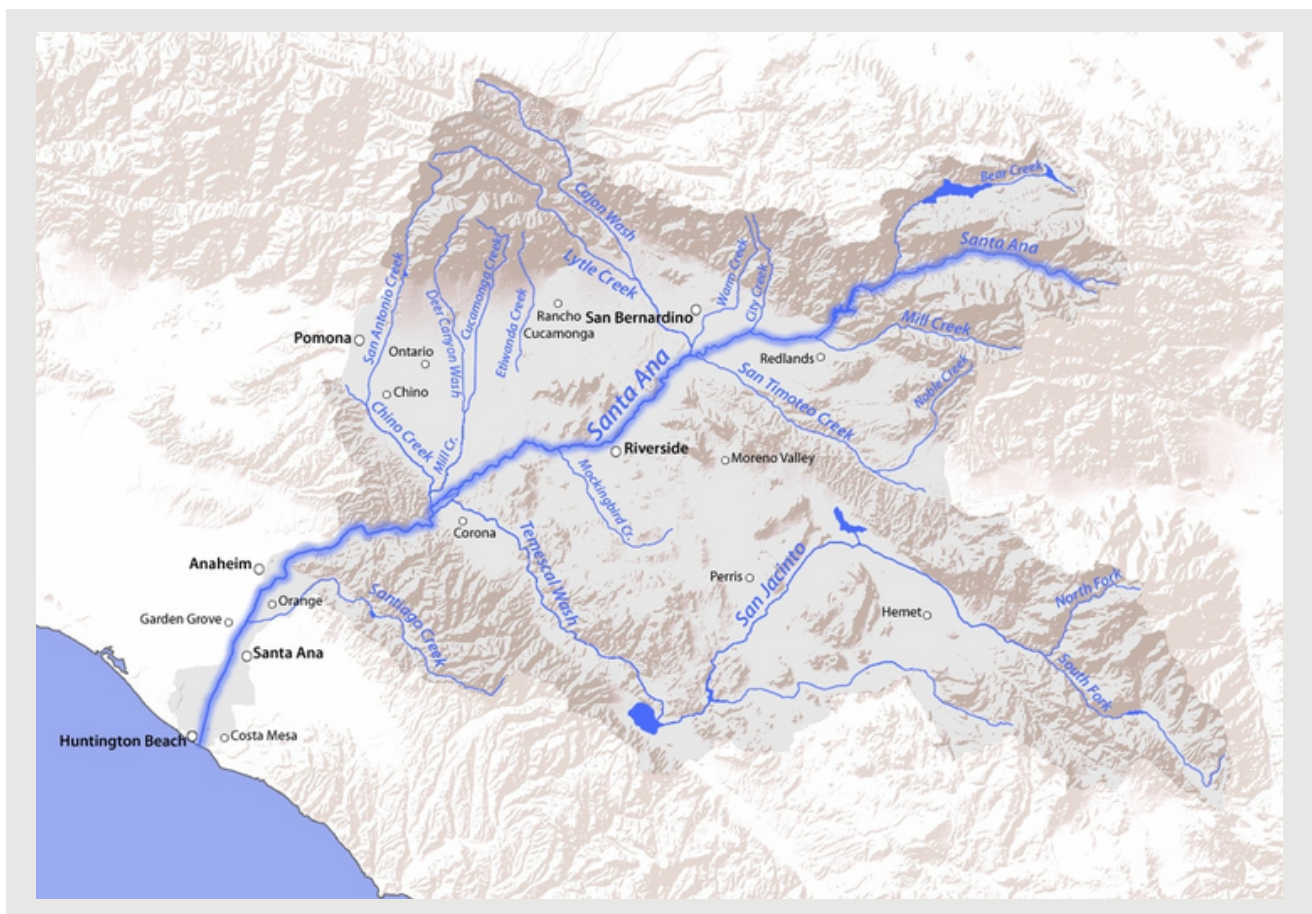
Santa Ana River: OC Parks & State Coastal Conservancy Continued

6) Grant indigenous leaders with guardianship over the Santa Ana River and grant the Santa Ana River with legal personhood. This would entitle the river and its guardians with rights to sue, to utilize compensation for its own wholesomeness, and to have a say in multipurpose projects that may impact the body of water.

Successful examples and benefits of granting personhood to a river have been found in the following locations:

- United States: Klamath River
- New Zealand: Whanganui River
- Colombia: Amazon River
- Canada: Magpie River

We can continue being water champions, and lead by example by granting the Santa Ana River personhood along with other conditions mentioned above.



INDUSTRIAL POLLUTERS

Identifying Polluters

In order, to prevent companies from simply rebranding and relocating themselves to avoid accountability. Therefore, we'd like to see :

1) Transparency by creating a database to polluters and track history of pollution by companies. We also want to track staff, CEOs, products, military departments, and anything linked to a certain company that is causing recurring pollution patterns.

Permits

Monetary consequences are not enough for industrial companies to reduce their pollution contribution. Therefore, they should face larger consequences such as permits revocation and prohibition of re-branding and relocating. To do so, the following strategies are recommended.

1) Implement a limit of 2 of lawsuits a business can have filed against them before having their operations permit revoked at the city, county, and state levels.

2) Upon revocation of the Conditional Use Permit, city and county legislative bodies should limit the number of appeals of the revocation, down to one (1) appeal process before the final decision-making body, which shall be completed within a period of sixty (60) days.

3) No fecal matter dumping into storm water drains or waterways.



CITY MAINTENANCE

Street Sweeping

- 1) Increase oversight and monitoring of street maintenance standards and hold the city accountable for failed or incomplete street maintenance.
- 2) Cease all street sweeping and clearing of encampments of unhoused people along waterways and bodies of water. Provide encampments with sanitation resources and equipment to help ensure the upkeep of encampments along said bodies of water. Partner with social worker programs or grassroots organizations that specialize in supporting unhoused populations and encampments (i.e. OC United Way). Prioritize affordable and transitional housing with walkable, bike-friendly neighborhoods around the Santa Ana River.

Waste Management

- 1) Improve waste management monitoring, and enforcement by contacting the city's waste management contractor and establish green bins as additional compost bins. Adding composting bins to government buildings for staff kitchens or break rooms.

County and state standards aim to provide a clean and safe environment for the general public. However, residents are concerned about constant trash built up on waterways.

Whether this falls upon the responsibility of the city's waste management contract or the county's overall responsibility, we urge the water agencies to pressure such entities on improving monitoring and enforcement to reduce pollution in rivers and other bodies of water.

Waste Management in Apartment Complexes & Multi Family Units

To reduce storm water pollution, proper waste management policies must be enforced such as SB1383 and AB26. Failure to comply to these laws should result in the following consequences.

- 1) Landlords cannot increase rent to provide basic resources or to cover the fee that was given to them.
- 2) Protection against unlawful evictions due to retaliation.



GENERAL WATER CONSERVATION

Water Conserving Devices & Rebates Programs

1) Host educational workshops or park events where water conserving devices (ex. rain barrels, shower heads, etc.) for free. Along with brochures with a walkthrough on installation & use instructions.

2) Emphasize SoCal Water Smart's BeWaterWise.com (BWW) rebates program by hosting water conservation devices rebates workshops with assistance from city or BWW staff on application process. Remove cap of 2 rain barrels.

3) Require low-pressure irrigation systems/drip systems for agriculture

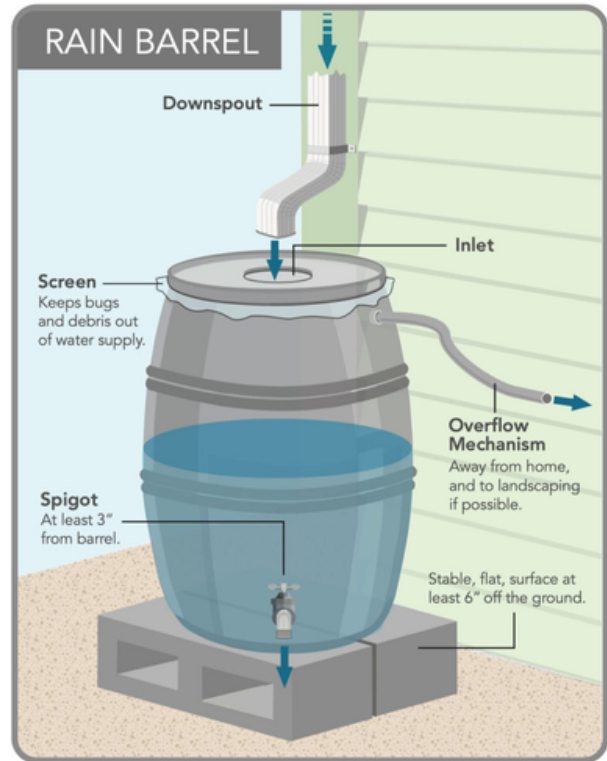


Image Source: City of Palo Alto Stormwater Program

Landscaping & Irrigation Practices

1) Establish new rebate program for transitioning landscapes to native and drought resistant plants.

2) Require rental properties and businesses to transition to all drought-resistant & native plants.

3) Require all government (City, County, State, & Federal) owned properties and new housing developments to plant drought-resistant native plants exclusively.

4) Require cities to establish/update the Urban Forest Master Plan, with 35% more native tree canopy, prioritizing expanded sidewalks and other pedestrian and bike-friendly infrastructure to accommodate required water absorption and permeable surface area per tree.

5) Create a city or county wide Garden Installation Program to access free gardening supplies or sustainable landscaping resources.

GENERAL WATER CONSERVATION

Home Owners Associations (HOA)

- 1) Eliminate the requirement of Homeowners Association (HOA) approval for the planting and growing of native and drought tolerant plants. Doing this helps to create drought resilience, cleans up pollution, and amplifies indigenous stewardship.
- 2) Eliminate the limit of rain barrels and rain collection systems on properties within HOA.

Please refer to [CA Civic Code SS 4735](#)



Bio-catch Systems

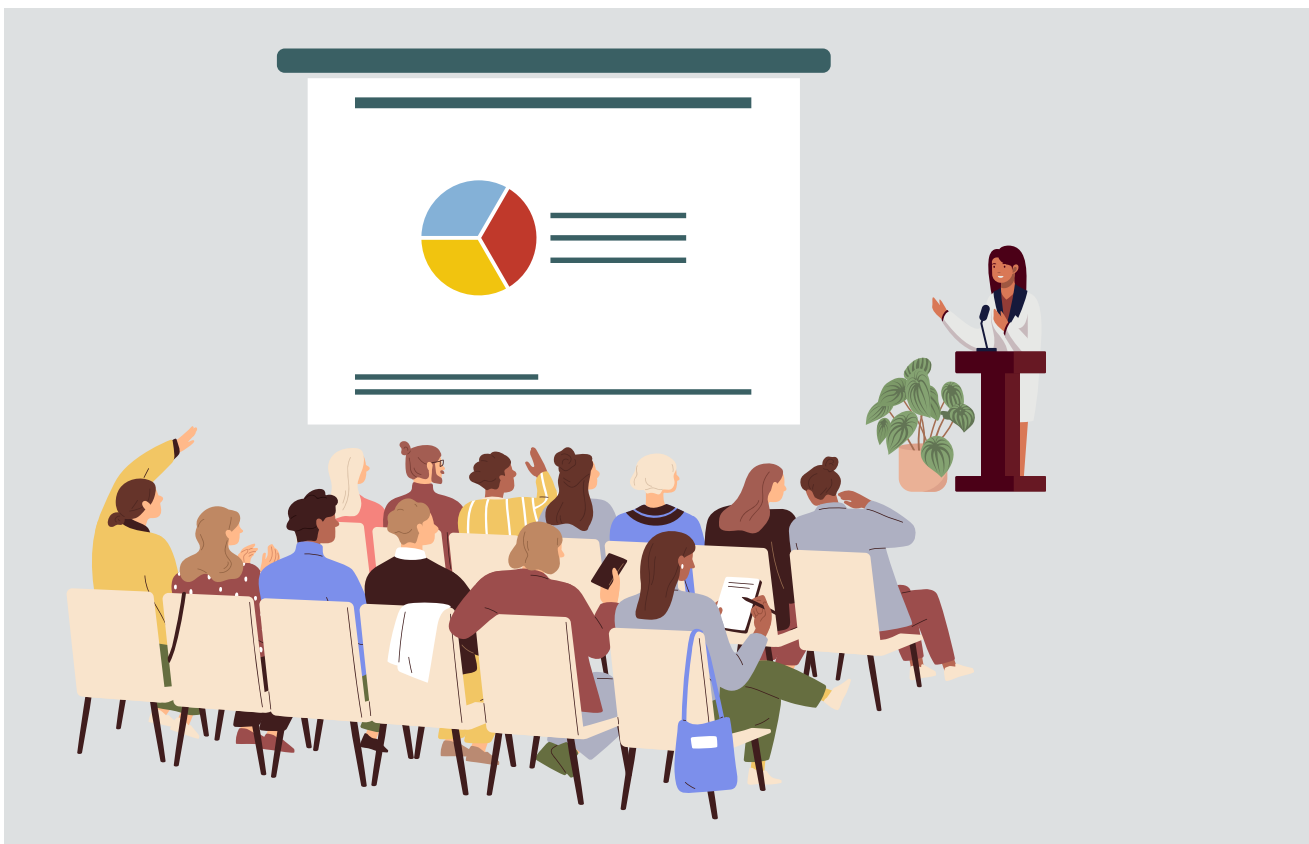
- 1) Require and prioritize bio-swales as a Best Management Practice for increasing groundwater supply and preventing runoff pollution from sites such as gasoline stations, waste disposal sites, and industrial manufacturers, with adequate maintenance schedule.

Bio-swales are excellent filters of storm water pollutants, and contribute to the restoration of groundwater supplies.

WATER GOVERNANCE

Public Engagement Strategies - General

- 1) Water agencies should continue conducting community events or meetings with language interpretation when presenting the public with findings of harmful toxins in water supplies and reservoirs. To further decrease the language barrier, multiple dates with different leading languages may be more inviting to folks vs having live interpretation. Live interpretation sometimes limits engagement and slows down the natural development of conversations.
- 2) Agencies should continue to use the beginning of the meeting to welcome public comments in multiple avenues of communication (e.g. in-person, virtually, and via email.) Also to increase participation, meetings should be held in community spaces, such as schools, libraries, and community centers.
- 3) Local agencies should continue to provide meeting interpretation in languages common in the community and consider separate meetings when appropriate to aid engagement. Meetings should also include information pertaining to findings on harmful toxins, health risks, and clean-up process and progress.



WATER GOVERNANCE

Public Engagement Strategies - Remediation Process

The following recommendations are crucial during any point of a remediation case or process, and can be adopted to general outreaching scenarios.

1) Water agencies and the city should notify the general public of upcoming clean ups with expected delay time line via social media, postcards, street signs, etc. This includes notifications 3 months prior to new projects and monthly notifications should update the public on industrial polluters related to ongoing cleanup projects. Notification efforts should include flyers, canvassing hours with infographics, and outreach efforts to neighborhood associations and community organizations prioritizing Disadvantaged Communities (DAC's).

2) When a clean-up is in progress, water agencies should conduct regularly scheduled meetings in an accessible and transparent manner. Work around working class schedules, for example, prioritizing evening meetings.

3) Drafts of findings should be released at least a seven (7) days prior to meetings in order to better prepare community members for commentary during the meetings. We urge water agencies to explore ways to ensure initial, supplementary, and ongoing water contamination clean-up costs will not be charged to low income/BIPOC communities via increased utility bills or other expenses.

4) Brownfield development - We urge agencies set a policy ensuring notification of ongoing cleanup efforts and ensuring low-income communities within a 1 mile radius of a polluted development site will not be charged with the contamination costs accrued by the prior occupant who vacated the parcel. We also urge agencies add affordable health insurance to the cost of clean up to the polluter.

WATER GOVERNANCE

Website Suggestions For Water Agencies

- 1) Create and maintain “resources” or "How do I-" tab.
- 2) Include multiple language translations, including the ability to change between most common local languages in the upper area of webpages.
- 3) Update "Upcoming Meetings" page with relevant links and details on how to attend.
- 4) Add the option to submit comment prior to meetings with appropriate instructions.
- 5) Easily direct residents to important information.
- 6) Large print options for visually-impaired people/other options for other visual impairments.
- 7) Regular, frequent social media presence including announcements with links.
- 8) Provide an easily accessible Zoom link for upcoming meetings.
- 9) Provide links to recorded Zoom meetings.
- 10) Offer meeting times fitting a working class schedule.
- 11) Options to submit comments prior to meetings.
- 12) Regularly release a calendar of upcoming meetings.



HEALTH OF WATERWAYS & BODIES OF WATER

General Concerns Across Multiple Waterways & Solutions

- 1) Ensure CEQA guidelines are being followed and monitored throughout construction phases aimed to deconstruct cemented infrastructures in waterways.
- 2) Increase water testing along creeks, rivers, etc. with algae blooms to identify what chemicals or fertilizers are causing algae blooms. If any are identified, an investigation will begin to identify a point source or non point source area zone.



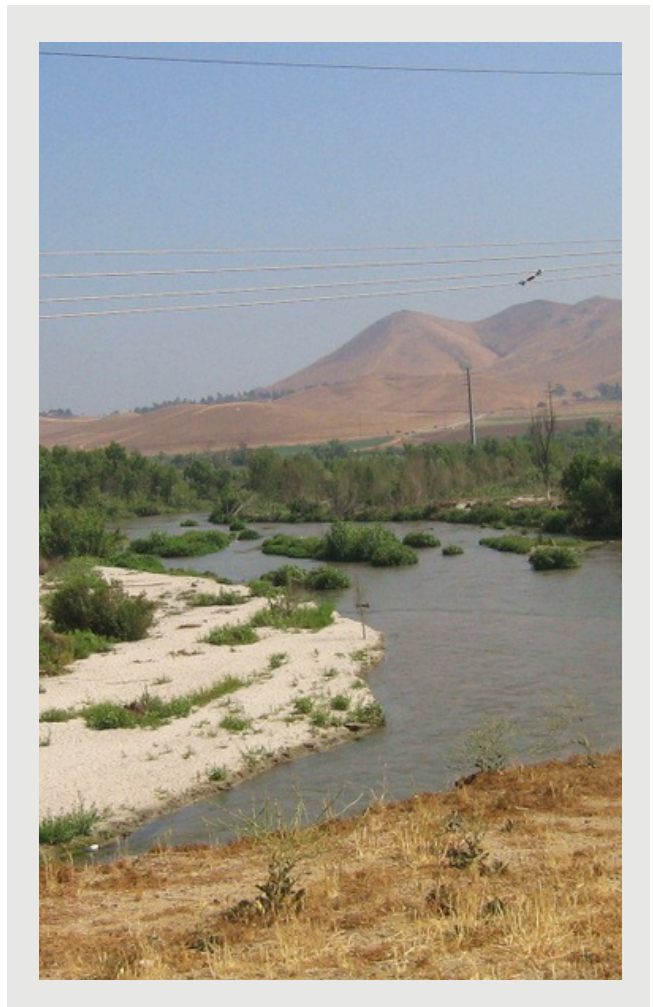
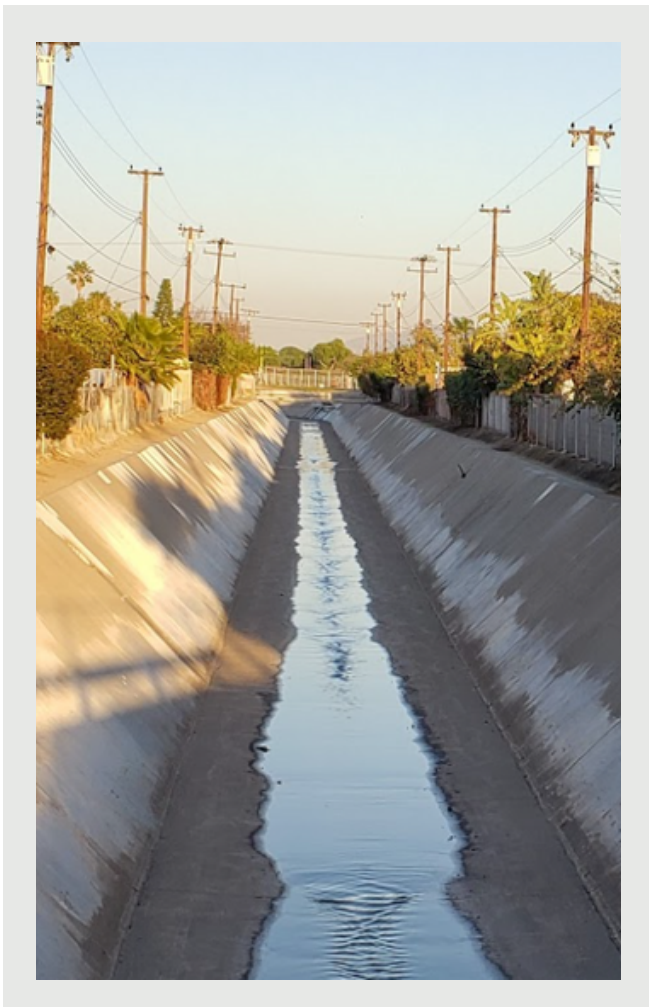
Algae Blooms

- 1) Require Orange County Flood Control District, Santa Ana River Watershed Project Authority, and relevant public agencies to partner with local universities, schools, community groups, grassroots organizations, nonprofits, and third-party vendors to use subject-matter experts.
- 2) Work with professionals and experts on combating algae blooms to implement best practices and prevention methods. Increase awareness and provide education on access to algae bloom clean-up strategies from the city or respective water authority.

HEALTH OF WATERWAYS & BODIES OF WATER

Santa Ana River: Soft bottoms

- 1) Implement and increase soft bottoms to combat cemented rivers that remove wetlands and prevent groundwater infiltration and restore the health and longevity of the Santa Ana River. Ensure that this process does not lead to increased, violent displacement of unhoused people.
- 2) Prioritize replacing concrete riverbeds with soft bottoms in areas with tall buffer zones (i.e., ARTC or Angel's Stadium).



EDUCATIONAL OUTREACHING

Small Businesses Outreaching

- 1) Engage in educational outreach to businesses on water quality and run-off pollution prevention. Educational outreach can be manifested in various ways, there is not one solution that fits all. This education should be required professional development training for all employees of said businesses.
- 2) Contact local and private businesses and/or business associations to inform them of more sustainable practices and offer them professional development workshops.
- 3) Partner with OC waste management agencies to increase awareness on proper disposal of toxic waste and chemicals.
- 4) Outreach to public and private businesses on more sustainable approaches and enforce CEQA regulations and/or FEMA neighborhood incentives.

Consumer Outreaching

Conduct educational outreach on water conservation and conscious consumption including but not limited to:

1. Workshops with free materials and resources to increase water conservation.
2. Reusable water balloon giveaway.
3. Providing free water-efficient replacements for household appliances such as shower heads, faucets, etc.
4. Rain barrel installation workshop and rebate program walk-throughs.

There are various resources already available for water conservation and mindfulness, but how this information is integrated is vital. These workshops can be implemented in various ways such as school districts, community associations, or even canvassing. Orange County Environmental Justice will be glad to assist in hosting these workshops with the assistance of relevant water agencies. These efforts should prioritize the engagement of youth.

Tenant & Landlord Outreaching

- 1) Require landlords, property managers, and property owners to keep up with maintenance and repairs that pertain to the health of the local environment and waterways. If a landlord fails to keep up with maintenance and repairs they should be subjected to fines and other necessary consequences. The city should provide financial assistance for these projects if the landlord or owner cannot afford it.

CONCLUSION

Our findings detail the need to address water quality issues in Orange County that have fractured the public's trust in OC's water management initiatives. Anaheim, Fullerton, Garden Grove, Orange, and Santa Ana are the cities in Orange County (OC) with the highest concentrations of people of color, according to data. These cities also have disproportionately high concentrations of toxic industrial activities, which have harmed the County's water quality.

Our research demonstrates how these structural inequalities negatively impact both the resident's trust in local water management practices and the health of individuals and natural waterways. The findings detailed in our photovoice project outline major environmental concerns such as, but not limited to water pollution, stormwater pollution, inadequate waste management, inadequate storm drainage systems, a need for permeable roads, and improper maintenance of water runoff.

To address these environmental risks, our community-lead research suggests that agencies such as the Orange County Water District should increase efforts to take care of local water management systems through a variety of initiatives that begin with promoting Indigenous Stewardship over the waterways of Orange County which disproportionately affect people of color and the Indigenous community at large. These programs should focus on granting personhood and Indigenous guardianship over the Santa Ana River, promoting biodiversity, intervening in industrial pollution, improving city maintenance, remediating water governance strategies, and increasing educational outreach for businesses and community members.

These suggestions aim to improve the overall health of waterways in Orange County while directly reducing the visible environmental risks that threaten the overall well-being of our community members and the land we live on.

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Thank you!

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